

WHAT IS CLAIMED IS:

- 1 1. A method of transferring electronic data from a remote location
2 to an electronic device over a bandwidth-constrained connection, the
3 method comprising:
4 selecting electronic data using an electronic device;
5 determining whether the electronic data has a supported
6 format; and
7 automatically issuing a transfer instruction for the electronic
8 data based on acceptability criteria, the acceptability criteria comprising
9 whether the electronic data has a supported format.
- 1 2. The method of claim 1, further comprising sending a list of
2 supported formats to a proxy server.
- 1 3. The method of claim 2, wherein the list of supported formats is
2 sent to the proxy server upon selecting the electronic data.
- 1 4. The method of claim 2, further comprising automatically
2 updating the list of supported formats to reflect the changes in
3 applications included in the electronic device.
- 1 5. The method of claim 2, further comprising automatically
2 updating the list of supported formats after a file compatibility error
3 occurs in the electronic device.
- 1 6. The method of claim 2, further comprising manually updating
2 the list of supported formats.
- 1 7. The method of claim 1, wherein selecting electronic data
2 comprises sending a request to view an Internet web page.

1 8. The method of claim 7, wherein sending a request to view an
2 Internet web page comprises entering an Internet web page address in an
3 Internet web browser.

1 9. The method of claim 7, wherein sending a request to view an
2 Internet web page comprises activating a hyperlink.

1 10. The method of claim 1, wherein selecting electronic data
2 comprises sending a request to transfer an electronic file.

1 11. The method of claim 10, wherein sending a request to
2 transfer an electronic file comprises issuing a request to download the
3 electronic file from a remote source location.

1 12. The method of claim 1, wherein the electronic device is
2 selected from a handheld computer, a pager, and a mobile phone.

1 13. The method of claim 1, wherein determining whether the
2 electronic data has a supported format comprises examining the electronic
3 data to determine its format.

1 14. The method of claim 1, wherein determining whether the
2 electronic data has a supported format comprises comparing the selected
3 data format to a list of supported formats.

1 15. The method of claim 1, wherein the determining whether the
2 electronic data has a supported format and issuing a transfer instruction
3 steps are performed by a proxy server.

1 16. The method of claim 1, wherein the transfer instruction
2 comprises an instruction to transfer the electronic data to the electronic
3 device.

1 17. The method of claim 16, wherein a transfer instruction
2 comprises an instruction to transfer the electronic data over a wireless
3 connection.

1 18. The method of claim 1, further comprising transferring the
2 selected electronic data in response to the transfer instruction.

1 19. The method of claim 1, wherein the electronic data is
2 selected from electronic audio, video, graphic, applet, program, and
3 Internet web page plug-in files.

1 20. The method of claim 1, further comprising sending a list of
2 unacceptable source locations to a proxy server.

1 21. The method of claim 20, wherein the acceptability criteria
2 further comprises whether the electronic data has an acceptable source
3 location.

1 22. The method of claim 21, wherein the electronic data has a
2 supported format and an unacceptable source location and the transfer
3 instruction comprises an instruction not to send the electronic data to the
4 electronic device.

1 23. A method of transmitting electronic information to an
2 electronic device, the method comprising:
3 issuing a request to an information transmission system that
4 electronic information be transmitted to an electronic device;
5 transferring the requested information from a source location
6 to the information transmission system;
7 filtering the requested information to exclude incompatible
8 information; and

9 wirelessly transmitting the filtered information to the
10 electronic device.

1 24. The method of claim 23, further comprising sending a list of
2 supported formats from the electronic device to the filtering system.

1 25. The method of claim 24, wherein the list of supported
2 formats is sent to the filtering system upon issuing the request that
3 electronic information be transmitted.

1 26. The method of claim 24, further comprising automatically
2 updating the list of supported formats when an update event occurs, the
3 update event selected from the addition of an application to the electronic
4 device, the removal of an application from the electronic device, and the
5 occurrence of a file compatibility error in the electronic device.

1 27. The method of claim 24, further comprising manually
2 updating the list of supported formats.

1 28. The method of claim 23, wherein the information
2 transmission system comprises a proxy server configured to determine
3 whether the requested electronic information has a supported format.

1 29. The method of claim 23, wherein filtering the requested
2 information to exclude incompatible information comprises comparing the
3 format of the requested information to a list of supported formats and
4 excluding information that does not have a format included in the list of
5 supported formats.

1 30. The method of claim 23, wherein the electronic device is
2 selected from a laptop computer, a handheld computer, a pager, and a
3 mobile phone.

1 31. The method of claim 23, wherein the information
2 transmission system comprises a proxy server and a wireless network.

1 32. The method of claim 23, wherein issuing a request that
2 electronic information be transmitted includes at least one of entering an
3 Internet web page address in an Internet web browser, activating a
4 hyperlink, and issuing a request to transfer an electronic file.

1 33. The method of claim 23, wherein the source location is
2 selected from a computer, an electronic file server, and another electronic
3 device.

1 34. The method of claim 23, further comprising sending a list of
2 unacceptable source locations to the information transmission system and
3 filtering the requested information to exclude information having an
4 unacceptable source location.

1 35. A method of collecting electronic data from a remote source,
2 the method comprising:
3 sending an electronic data request from an electronic device
4 to a data transmission system, the electronic device being in wireless
5 communication with the data transmission system;
6 gathering the requested data from a remote source and
7 storing a copy of the requested data in the data transmission system;
8 determining within the data transmission device whether the
9 gathered data is compatible with applications included in the electronic
10 device; and
11 wirelessly transmitting only compatible data to the electronic
12 device.

1 36. The method of claim 35, wherein the data transmission
2 system comprises a proxy server and means for wirelessly transmitting
3 and receiving data.

1 37. The method of claim 35, further comprising sending a list of
2 supported formats to the data transmission system.

1 38. The method of claim 37, wherein the list of supported
2 formats is sent to the data transmission system upon sending the
3 electronic data request.

1 39. The method of claim 37, further comprising automatically
2 updating the list of supported formats when an update event occurs, the
3 update event selected from the addition of an application to the electronic
4 device, the removal of an application from the electronic device, and the
5 occurrence of a file compatibility error in the electronic device.

1 40. The method of claim 37, further comprising manually
2 updating the list of supported formats.

1 41. The method of claim 35, wherein determining whether the
2 gathered data is compatible with applications included in the electronic
3 device comprises comparing the format of the gathered data with a list of
4 formats supported by applications included in the electronic device.

1 42. The method of claim 35, wherein the electronic device is
2 selected from a laptop computer, a handheld computer, a pager, and a
3 mobile phone.

1 43. The method of claim 35, wherein sending an electronic data
2 request includes at least one of entering an Internet web page address in

3 an Internet web browser, activating a hyperlink, and issuing a request to
4 transfer an electronic file.

1 44. The method of claim 35, wherein the remote source is
2 selected from a computer, an electronic file server, and another electronic
3 device.

1 45. The method of claim 35, further comprising sending a list of
2 unacceptable source locations to the data transmission system and
3 transmitting only data not having an unacceptable source location.

1 46. A method of filtering electronic data from a remote source
2 location based on the compatibility of the information with applications
3 included in a wireless electronic device, the method comprising:

4 gathering electronic data from a remote source location
5 within a data transmission system;

6 analyzing the data within the data transmission system to
7 determine its format;

8 comparing the format of the data to a list of data formats
9 supported by an electronic device;

10 transmitting to the electronic device only portions of the data
11 having a supported data format.

1 47. The method of claim 46, wherein the list of supported data
2 formats is generated within the electronic device and sent to the data
3 transmission system.

1 48. The method of claim 46, further comprising sending a list of
2 applications included in the electronic device to the data transmission
3 system, wherein the list of supported formats is generated within the data
4 transmission system based on the list of applications.

1 49. The method of claim 46, further comprising automatically
2 updating the list of supported data formats when an update event occurs,
3 the update event being selected from the addition of an application to the
4 electronic device, the removal of an application from the electronic
5 device, and the occurrence of a file compatibility error in the electronic
6 device.

1 50. The method of claim 46, further comprising manually
2 updating the list of supported formats.

1 51. The method of claim 46, wherein the electronic device is
2 selected from a laptop computer, a handheld computer, a pager, and a
3 mobile phone.

1 52. The method of claim 46, further comprising sending a list of
2 unacceptable remote source locations to the data transmission system
3 and transmitting only data not having an unacceptable remote source
4 location.

1 53. A method of delivering electronic data in a wireless
2 environment, the method comprising:
3 receiving within a data transmission system a request from a
4 portable electronic device to transfer electronic data from a remote source
5 to the portable electronic device;
6 receiving within the data transmission system a list of data
7 formats supported by applications included in the portable electronic
8 device;
9 comparing within the data transmission system the format of
10 the requested data to the list of supported data formats; and
11 wirelessly transmitting the requested data to the portable
12 electronic device only if it has a supported format.

1 54. The method of claim 53, wherein the data transmission
2 system comprises a proxy server.

1 55. The method of claim 53, wherein the list of supported data
2 formats is received simultaneously with the request from the portable
3 electronic device.

1 56. The method of claim 53, wherein the list of supported
2 formats received comprises a list of formats supported by the portable
3 electronic device at the time the request from the portable electronic
4 device is received.

1 57. The method of claim 53, wherein the request to transfer
2 electronic data is a request to view an Internet web page.

1 58. The method of claim 53, wherein the request to transfer
2 electronic data is a request to transfer an electronic file to the portable
3 electronic device.

1 59. The method of claim 53, wherein the portable electronic
2 device is selected from a laptop computer, a handheld computer, a pager,
3 and a cellular telephone.

1 60. The method of claim 53, further comprising sending a list of
2 unacceptable remote sources and wirelessly transmitting the requested
3 data to the portable electronic device only if the data does not have an
4 unacceptable remote source.

1 61. A method of receiving information embedded in an Internet
2 web page, the method comprising:
3 issuing a request from a portable electronic device to a proxy
4 server, the request comprising a command to transmit electronic

5 information included in an Internet web page originating from a remote
6 location;
7 transmitting a list of plug-ins loaded on the portable
8 electronic device to the proxy server;
9 comparing within the proxy server the electronic information
10 to the list of plug-ins to determine if the electronic information is
11 compatible with the loaded plug-ins; and
12 wirelessly transmitting the electronic information to the
13 portable electronic device only if the information is compatible with the
14 loaded plug-ins.

1 62. The method of claim 61, wherein the list of plug-ins includes
2 all operational plug-ins included in the portable electronic device at the
3 time of the request.

1 63. The method of claim 61, wherein the list of plug-ins is
2 automatically updated automatically to reflect changes in the portable
3 electronic device prior to transmitting the list of plug-ins to the proxy
4 server.

1 64. The method of claim 61, wherein the portable electronic
2 device is selected from a laptop computer, a handheld computer, a pager,
3 and a mobile phone.

1 65. The method of claim 61, wherein the remote location is
2 selected from a server computer and another portable electronic device.

1 66. The method of claim 61, further comprising generating a list
2 of unacceptable remote locations and wirelessly transmitting the
3 electronic information to the electronic device only if the web page does
4 not originate from an unacceptable remote location.

1 67. A system for transmitting compatible electronic data to an
2 electronic device over a bandwidth-constrained connection, the system
3 comprising:

4 an electronic device capable of transmitting and receiving
5 electronic data;

6 an information transmission system in communication with
7 the electronic device and an electronic data source location;

8 means for requesting transmission of electronic data from
9 the electronic data source location to the electronic device; and

10 means for filtering the electronic data to transmit only
11 compatible electronic data.

1 68. The system of claim 67, wherein the electronic device is
2 selected from a laptop computer, a handheld computer, a pager, and a
3 mobile phone.

1 69. The system of claim 67, wherein the information
2 transmission system is in wireless communication with the electronic
3 device.

1 70. The system of claim 67, wherein the information
2 transmission system comprises a proxy server.

1 71. The system of claim 67, wherein the information
2 transmission comprises a wireless network.

1 72. The system of claim 67, wherein the means for filtering the
2 electronic data comprises means for comparing the format of the
3 electronic data to a list of data formats supported by applications included
4 in the electronic device.

1 73. The system of claim 72, wherein the list of supported data
2 formats is automatically updated when applications are installed on and
3 removed from the electronic device.

1 74. The system of claim 72, wherein the list of supported data
2 formats is automatically updated when a file compatibility error occurs in
3 the electronic device.

1 75. The system of claim 72, wherein the list of supported data
2 formats is manually updated by a user.

1 76. The system of claim 67, further comprising means for
2 filtering the electronic data to transmit only electronic data originating
3 from acceptable source locations.

1 77. The system of claim 76, wherein the means for filtering the
2 electronic data to transmit only electronic data originating from acceptable
3 source locations comprises means for comparing the source location of
4 the electronic data to a list of unacceptable source locations.

1 78. The system of claim 67, wherein the electronic data is
2 included in an Internet web page.

1 79. The system of claim 67, wherein the means for requesting
2 transmission of electronic data comprises sending a request to view an
3 Internet web page.

1 80. The system of claim 67, wherein the means for requesting
2 transmission of electronic data comprises sending a request to transmit an
3 electronic file.

1 81. A system for transferring electronic information from a
2 remote location to a portable electronic device, the system comprising:

3 an electronic device capable of transmitting and receiving
4 electronic information;

5
6 a proxy server in wireless communication with the electronic
7 device;

8 means for generating a list of file types supported by
9 applications included in the electronic device;

10 means for transferring electronic information from a remote
11 location to the proxy server;

12 means for comparing electronic information to the list of
13 supported file types; and

14 means for wirelessly transmitting electronic information to
15 the electronic device only if the electronic information has a supported file
16 type.

1 82. The system of claim 81, wherein the electronic device is
2 selected from a computer, a handheld computer, a pager, and a mobile
3 phone.

1 83. The system of claim 81, wherein the list of supported file
2 types is automatically updated when applications are installed on and
3 removed from the electronic device.

1 84. The system of claim 81, wherein the list of supported file
2 types is automatically updated when a file compatibility error occurs in
3 the electronic device.

1 85. The system of claim 81, further comprising means for
2 transmitting electronic information to the electronic device only if the
3 electronic information originates from an acceptable remote location.

1 86. A system for wirelessly transmitting electronic data from a
2 remote source to a portable electronic device, the system comprising:
3 a data transmission system operating in a wireless network
4 environment;
5 a portable electronic device in wireless communication with
6 the data transmission system and configured for receiving electronic data
7 from the data transmission system;
8 means for transmitting requests for electronic data from the
9 portable electronic device to the data transmission system;
10 means for filtering the requested electronic data to exclude
11 incompatible data; and
12 means for transmitting the filtered electronic data from the
13 data transmission system to the portable electronic device.

1 87. The system of claim 86, wherein the data transmission
2 system comprises a proxy server.

1 88. The system of claim 86, wherein the portable electronic
2 device is selected from a laptop computer, a handheld computer, a pager,
3 and a cellular telephone.

1 89. The system of claim 86, wherein the means for filtering the
2 electronic data to exclude incompatible data comprises means for
3 comparing the format of the electronic data to a list of data formats
4 supported by applications included in the portable electronic device.

1 90. The system of claim 89, wherein the list of supported data
2 formats is automatically updated when an application is added to or
3 removed from the portable electronic device.
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1 91. The system of claim 89, wherein the list of supported data
2 formats is automatically updated when a file compatibility error occurs in
3 the electronic device

1 92. The system of claim 89, wherein the list of supported data
2 formats is manually updated by a user.

3 93. The system of claim 86, wherein the means for transmitting
4 requests for electronic data comprises a web browser.

1 94. The system of claim 93, wherein the electronic data
2 comprises information included in an Internet web page.

1 95. The system of claim 92, further comprising means for
2 filtering the requested electronic data to exclude electronic data
3 originating from an unacceptable source.

1 96. The method of claim 92, wherein the electronic data is
2 selected from electronic audio, video, graphic, applet, program, and plug-
3 in files.